Written evidence submitted by the UCL Institute for Innovation & Public Purpose (UCL IIPP)

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Q1 – How can any fiscal and economic stimulus packages be aligned with the UKs ambitions on net-zero, biodiversity, the circular economy, and Sustainable Development Goals?

1. The UK economy remains fundamentally under-prepared for both the emissions mitigation challenge ahead, and the need to adapt our infrastructure to withstand future impacts that are already 'locked in'.[1] The COVID-19 crisis has revealed the devastating consequences of failing to prepare for systemic threats. Indeed, the pandemic and the climate emergency resemble each other in several ways, both involving negative externalities, complex system interactions, and action that hinges upon decisive state interventions.
2. To reach net zero emissions by 2050 requires long-term investment to achieve significant technological and organisational innovation. With corporates left indebted by the pandemic, fiscal stimulus will be necessary to stimulate demand and ensure the urgently needed green transition is not held back by a sluggish pandemic recovery. A green public investment programme should be guided by a mission-oriented industrial strategy, which seeks to break down sectoral silos and mobilise different actors across the economy towards bold and ambitious targets.[2] This requires the government to take on a market-shaping role, co-creating value with the private sector by providing direction and confidence to other investors. IIPP research shows that, if structured correctly, public investment significantly mobilises private investment at a sectoral level, meaning that the public sector can actively set the direction needed.[3] [4]
3. The UK's 2017 national (and subsequent local) industrial strategies demonstrate the government embracing cross-sectoral, carbon-targeted missions in areas such as low carbon housing, and clean mobility.[5] The UK has also made ongoing commitments to the Sustainable Development Goals (SDGs),[6] with the governments of Wales and Scotland making further commitments to the SDGs in the form of the *Well-being of Future Generations (Wales) Act;* and *National Performance Framework* respectively. Yet, a genuine 'Build Back Better' agenda, championed by organisations throughout the UK, must go further. Just as the European Commission is using its pre-COVID-19 Green Deal and Industrial Strategy as the 'compass' and 'motor' for

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[1] Committee on Climate Change (2020). Reducing UK emissions: 2020 Progress Report to Parliament. (link).
[2] Mazzucato, M and McPherson, M. (2019). The green entrepreneurial state: What the Green New Deal can learn from the IT revolution. UCL Institute for Innovation and Public Purpose, Policy Brief series (IIPP PB 08).
[3] Mazzucato, M and Semieniuk, S. (2018). Financing renewable energy: Who is financing what and why it matters. Technological Forecasting and Social Change, Volume 127, February 2018, Pages 8-22.
4 Deleidi, M., De Lipsis, V., Mazzucato, M., Ryan-Collins, J. and Agnolucci, P. (2019). The macroeconomic impact of government innovation policies: A quantitative assessment. UCL Institute for Innovation and Public Purpose, Policy Report Working Paper Series (IIPP WP 2019-06). (link).
[5] UCL Commission for Mission-Oriented Innovation and Industrial Strategy (MOIIS) co-chaired by Mazzucato, M. and Willetts, D. (2019). A Mission-Oriented UK Industrial Strategy. UCL Institute for Innovation and Public Purpose, Policy Report, (IIPP WP 2019-04). (link).
[6] Gov.UK (2019). Implementing the Sustainable Development Goals. (link).

the *Next Generation EU* recovery plan,[7] the UK government must harness existing mission-oriented industrial strategy frameworks and commitments to ensure a green directionality to its fiscal and economic stimulus packages.

4. Crucially, this means more ambition and better policy integration. The £350 million already pledged to heavy industry decarbonisation is welcome but insufficient in the absence of a broader government spending plan to accelerate decarbonisation in transport, construction, buildings, and other remaining carbon-intensive UK sectors (see response to question 3 below).[8] New policy initiatives, such as the Circular Economy Package, launched on 30th July 2020, must be integrated into the recovery plan, as should other measures on biodiversity and broader environmental protections – which are notably missing from the current discourse. This point is vital and overlooked: biodiversity investments need to increase by up to eight times in order to meet internationally agreed targets.[9]

Q2 – How should the policy response to the current crisis differ from the response to the global financial crash in 2008?

5. The 2008 recession was a demand shock and not as truly global as the present Covid-19 crisis, which represents a dual supply and demand shock playing out at both domestic and international levels. In addition, longer term headwinds threaten to undermine and prolong the recovery from the upcoming recession, including an economy-wide corporate insolvency crisis,[10] dampened consumer and business confidence even with lockdown measures easing,[11] threat of mass unemployment and hysteresis effects,[12] and the effects of climate crisis – for which the UK remains fundamentally under-prepared.[13]
6. Given this context, we consider that the policy response to the Covid-19 crisis must focus on a greater role for fiscal stimulus; a return to austerity would be misguided. Firstly, with the overseas and domestic private sectors severely impacted, the government is left as the only economic actor able to materially stimulate demand within the UK economy. Secondly, far from 'crowding out', government spending crowds *in* private demand by de-risking and establishing a long-term path of certainty.[14] Thirdly, the present juncture presents a unique opportunity for the government to lock in extremely low borrowing costs for long maturities.
7. Concerns about increases in public deficits should not be overplayed. Gilt yields are at historic lows across the curve, showing that private investors continue to have faith in UK PLC. With the relaunch of gilt purchases through its QE programme, the Bank of England is enabling fiscal expansion whilst helping to keep gilt yields at historic lows – a point acknowledged by Governor Andrew Bailey.[15] It is our view that indirect monetary

[7] Mazzucato, M., Dibb, G., McPherson, M. 2020. The path to COVID recovery: the urgent need for the EU Green Deal and a new approach to Industrial Strategy. IIPP Blog (link).
[8] Committee on Climate Change (2020). Reducing UK emissions: 2020 Progress Report to Parliament. (link).
[9] Mazzucato, M. and McPherson, M. (2020). Why the Covid-19 recovery needs a proactive public sector. New Statesman. 6 July 2020 (link).
[10] Kundy, A. (2020). UK company insolvencies to rise sharply as state support measures unravel. Financial Times. 21 July 2020 (link).
[11] Bank of England (2020). August Monetary Policy Report. (link).
[12] Portes, J. (2020). The lasting scars of the Covid-19 crisis: channels and impacts. *VoxEU.* 1 June 2020. (link).
[13] Committee on Climate Change (2020). Op Cit.
[14] Deleidi, M., Mazzucato, M., & Semieniuk, G. (2019). Neither crowding in nor out: Public direct investment mobilising private investment into renewable electricity projects. *Energy Policy*. (link).
[15] Strauss, D. (2020). BoE is financing UK's coronavirus measures, Bailey acknowledges. *Financial Times.* 14 May 2020. (link).

financing is effectively underway and is both appropriate and necessary given the fiscal firepower needed to mitigate a historically large recession. Overall, ensuring strong, sustainable, and inclusive growth will manage public finances far better than fiscal consolidation, given output growth erodes the real value of future debt repayments.

8. The key question, therefore, is not what the UK can afford to spend, but where such spending is directed. It is our view that the policy response should prioritise (1) a strategic green investment programme; (2) job creation from a job guarantee scheme (see responses below); and (3) investing in well-resourced and resilient health and social services. The pandemic revealed critical deficiencies in public sector capacity, there is a need to ensure UK public services are able to protect citizens from future threats, such as the impacts of climate change. Investment, not austerity, must be seen as the route to economic recovery.
9. To mitigate the potentially scarring effects of widespread corporate bankruptcies resulting from the pandemic, the policy response should make greater use of state-backed equity and equity-like financing to support viable firms. A large state investment could take equity stakes in such firms and support them to transition their business models (e.g. to be aligned with the UK's net zero target) while saving jobs.[16] Currently the UK does not have a major state investment bank (SIB) and will soon lose access to the sizeable spending of the European Investment Bank due to Brexit. There has been increased public discussion about the need to create a new SIB for the UK.[17] The British Business Bank cannot raise finance through borrowing, and lacks many of the institutional capabilities and functions, such as equity investment, of comparable institutions.[18]
10. For SMEs, equity-like instruments (such as grants with some limited repayment through future taxes) should be explored as a more suitable means of support. Such instruments would not require the relinquishment of ownership (which is anathema to many small firms) but would offer support without adding to the threat of insolvency.[19]

Q3 – In what areas should interventions be targeted to deliver both economic and environmental benefits in the short and long term?

11. A well-targeted green investment programme can offer a greater multiplier effect than conventional stimulus. An early 2020 survey of 231 economic experts and government officials highlighted five fiscal policies with high potential to combine economic stimulus with a green transition: "Clean physical infrastructure, building efficiency retrofits, investment in education and training, natural capital investment and clean R&D".[20] Given the interconnected nature of the climate and biodiversity crises, government investment in nature protection and restoration is another critical sector that can support climate mitigation and disaster risk reduction, whilst creating jobs.[21] Many of these projects are 'shovel-ready' and labour-intensive, whilst required training could

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[16] Macfarlane, L. and Mazzucato, M. (2018). State investment banks and patient finance: An international comparison. UCL Institute for Innovation and Public Purpose Working Paper Series (IIPP WP 2018-01). (link).
[17] Pickard, J., Thomas, D., and Plimmer, G. (2020). UK Treasury draws up plans for infrastructure bank. *Financial Times.* 24 July 2020. (link). Thomas, N. and Pickard, J. (2020). UK Ministers plan 'Green Investment Bank 2.0'. *Financial Times.* 15 July 2020 (link).
[18] Macfarlane, L. and Mazzucato, M. (2018). State investment banks and patient finance: An international comparison. UCL Institute for Innovation and Public Purpose, Policy Report Working Paper Series (IIPP WP 2018-01) (link).
[19] The City UK. (2020). Supporting UK economic recovery: recapitalising businesses post Covid-19. (link).
[20] Hepburn, C., O'Callaghan, B., Stern, N., Stiglitz, J., and Zenghelis, D. Will COVID-19 fiscal recovery packages accelerate or retard progress on climate change? *Oxford Review of Economic Policy 36(1).* (link).

boost UK productivity levels.[22] Furthermore, green jobs are additional and well-distributed across the UK. It has been estimated that required green jobs may equal as much as half of the pre-crisis unemployed in some regions.[23]

12. Any economic support given to the private sector must be accompanied by green conditionalities where relevant (see next question). Beyond that, government spending can also boost nascent green markets through procurement, regulatory, and tax policies. The awarding of public contracts should be based on environmental quality or compliance with the United Nations Sustainable Development Goals. This has the potential to accelerate emissions reductions in the construction, education, and healthcare sectors, where public spending is a significant component of final demand. Regulatory standard-setting will be essential to improve energy efficiency in new-build and rental housing sectors, where split incentive problems and bounded rational behaviour have impeded progress.[24] Finally, tax and subsidy policies need to be brought up to date to realign distorted incentives in energy markets. The UK continues to have the highest fossil fuel energy subsidy in the European Union, according to the European Commission, with over €12 billion of public funds supporting fossil fuel sectors annually.[25]
13. Public sector interventions are also needed to ensure private financial flows are consistent with the net zero emissions goals. At present, UK banks and institutional investors are poor providers of the long-term, patient capital needed for green innovation. These private financial institutions, governed by short-termism, also continue to provide significant support to the fossil fuel sector. Globally, the banking sector has channelled $2.66 trillion into fossil fuels since the Paris Agreement, with Barclays being the top European contributor for the past four years.[26]
14. The recent expansion of central bank interventions presents an excellent opportunity to strategically re-channel financial flows towards greener alternatives. The significant role that central banks and financial supervisors have to play in managing climate financial risk and supporting an orderly transition has been recognised by current and former governors of the Bank of England (BOE), Banque de France, and De Nederlandsche Bank.[27] Yet, according to its own analysis, the Bank of England's corporate bond portfolio is currently aligned with a pathway to 3.5°C of warming by 2100.[28]
15. To support a green-focused recovery, the BOE should attach climate-related conditions to any carbon-intensive firm accessing direct lending from the Covid Corporate Financing Facility (CCFF) and exclude fossil fuel and the most carbon-intensive assets from the Corporate Bond Purchase Scheme and collateral framework. These adjustments are well within the BOE's current mandate as they represent prudent and necessary management of climate-related financial risks.[29] The maturing proceeds from the CCFF (which stands at £17.4 billion as of

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[21] Greenpeace (2020). Jobs and the Green Recovery. *Report.* (link).
[22] New Economics Foundation. Recession Ready: a green plan to beat tomorrow's downturn. 2020. (link).
[23] Ibid.
[24] Hope, A.J. and Booth, A. 2014. Attitudes and behaviours of private sector landlords towards the energy efficiency of tenanted homes. Energy Policy. 75, pp.369–378.
[25] European Commission (2019). Energy prices and costs in Europe. Report COM(2019). (link).
[26] Greenfield, P. and Makortoff, K. (2020). Study: global banks 'failing miserably' on climate crisis by funnelling trillions into fossil fuels. *The Guardian.* 18 March 2020. (link).
[27] Bailey, A., Carney, M., Villeroy de Galhau, F., and Elderson, F. The world must seize this opportunity to meet the climate challenge. *Guardian Opinion.* 5 June 2020. (link).
[28] Bank of England (2020). Climate-related financial disclosure report 2020. (link).
[29] Monnin, P. (2018). Integrating climate risks into credit risk assessment: Current methodologies and the case of central banks corporate bond purchases. (link).

the 5th August)[30] should be reinvested to capitalise a new Green Investment Bank to support state-backed lending into sustainable projects.

16. The prudential regulatory response has focused primarily on how to calculate the financial risks posed by climate change. Yet, IIPP research has demonstrated that significant uncertainty surrounding these risks means that meaningful estimations cannot be feasibly developed using quantitative approaches. Instead, we recommend that the BOE adopt a 'precautionary approach' to policy, taking preventative action to avoid worst-case scenarios.[31] To that end, capital adequacy risk weights on lending to unsustainable activities need to be made prohibitively high.[32] Quantitative credit guidance policies, such as quotas for green versus unsustainable lending, could also be used.[33]

Q5 – What sustainability conditions should be attached to Government bailouts for high-carbon industries?

17. Covid-19 conditionalities are a once-in-a-generation opportunity to support missions and shape markets – whether these are directing the market towards a green pathway, towards dissolving inequality, or in defence of workers' rights. Conditionalities on emissions targets, green R&D investment, carbon-intensive materials use, and worker treatment could be attached to high-carbon sectors.
18. In France, the bailouts for both Renault and AirFrance were conditional on carbon reduction commitments (in the French case, as well as stopping flying domestic routes where there are rail competitors). In both France and Denmark, state aid is denied to any company domiciled in an EU-designated tax haven and large companies receiving aid are being barred from paying dividends or buying back their own shares until 2021. The US CARES Act conditions include limits on compensation for the highest paid airline employees, and maintenance of employee pay.
19. When done right, conditionalities align corporate behaviour with long-term societal needs, ensuring sustainable growth and a better relationship between workers and firms. In the short term, this should focus on preserving employment relations where possible and maintaining the productive capacity of the economy, whilst avoiding extraction of funds to financial markets and executive compensation. In the long run, it is about ensuring that business models lead to more inclusive and sustainable growth; moving towards a 'stakeholder capitalism' model.[34]

Q6 – How can the economic recovery stimulus be used to deliver green jobs at a time of potentially high unemployment?

[30] https://www.bankofengland.co.uk/markets/bank-of-england-market-operations-guide/results-and-usage-data
[31] Chenet, H., Ryan-Collins, J. and van Lerven, F. (2019). Climate-related financial policy in a world of radical uncertainty: Towards a precautionary approach. UCL Institute for Innovation and Public Purpose Working Paper Series (IIPP WP 2019-13). (link).
[32] Finance Watch. (2020). Breaking the climate-finance doom loop: How banking prudential regulation can tackle the link between climate change and financial instability. (link).
[33] Bezemer, D., Ryan-Collins, J., van Lerven, F. and Zhang, L. (2018). Credit where it's due: A historical, theoretical and empirical review of credit guidance policies in the 20th century. UCL Institute for Innovation and Public Purpose Working Paper Series (IIPP WP 2018-11). (link).
[34] Institute for Innovation and Public Purpose (2020). Stakeholder capitalism during and after COVID-19. UCL IIPP COVID-19 Briefing Papers 01 (April 2020). (link).

20. The most recent UK economic forecasts predict an average unemployment rate of 8% by Q4 2020,[35] whilst a recent Bank of England survey of British businesses indicated that unemployment could rise to 3.5 million later this year.[36] To fully deploy its demand-creation capacity, there have been growing calls for the UK government act as 'employer of last resort', directly employing all workers who cannot find conventional employment.[37] It is our view that such a Job Guarantee Scheme (JGS) is crucial in order to accelerate both the economic recovery and the green transition.[38] A 'new fiscal constitution' is needed to ensure the mistakes of the last recession, where the creation of liquidity enriched only asset holders, are not repeated.[39]
21. To deploy a JGS in the UK, the government would guarantee a job at a living wage to any jobseeker who cannot secure employment in the private sector. Importantly, the JGS would be a voluntary add-on to unemployment benefit, not a replacement to it. The scheme would be funded by central government, but administered locally by local government, agencies, and social enterprises. The JGS would focus on providing jobs that are (a) necessary to manage the COVID-19 pandemic, such as contact tracing and testing; (b) urgently needed for the climate transition, such as building retrofit and EV charging infrastructure; and (c) poorly provided for by the private sector, such as in social care and environmental protection and restoration. Crucially, the JGS would involve a substantial training element, so workers may maintain or build upon their skills in preparation for the return to private employment.[40]
22. The benefits of a JGS are numerous. Firstly, the scheme maintains worker employability far better than unemployment benefit and can contribute to long-run productivity growth by ensuring the continued provision of training and experience during downturns. Secondly, the JGS sets a floor for private sector wages, and – by ensuring alternative employment is always available – can help to drive out exploitative working practices in the private sector. Thirdly, the JGS functions on the macro level as a strong automatic stabiliser, expanding during downturns to absorb layoffs and contracting during upturns as the private sector strengthens. Fully employed citizens maintain economic confidence and are more likely to consume out of their incomes than wealthier asset-holders. Finally, a JGS can influence the structure of employment overall, tilting the balance of skills and resources towards the green transition. This latter point is highly relevant to the construction and retrofit technology installation sectors, where a prominent skills gaps is holding back progress within the private sector.[41]
23. Finally, it paramount that the economic recovery is not only green, but just. A Just Transition framework must be implemented to ensure especially that those formerly working in carbon-intensive industries, such as airlines, are supported via re-skilling and job programmes. Such transition programmes need to accommodate the spatial impact of the reorganisation of economic activity to prevent drastic upheaval of local communities.

[35] HM Treasury (2020). Forecasts for the UK economy: a comparison of independent forecasts. (link).
[36] Chapman, B. (2020). UK unemployment set to surge to 3.5 million this year, business leaders forecast. *Independent.* 2 July 2020. (link).
[37] Mazzucato, M. and Skidelsky, R. (2020). Towards a New Fiscal Constitution. *Project Syndicate.* 10 July 2020. (Link).
Petrie, K. and Shepherd, J. (2020). A new safety net: guaranteeing jobs and training after the crisis. *Social Market Foundation report,* May 2020 (link).
TUC (2020). A new plan for jobs - Why we need a new jobs guarantee. *TUC Research Report,* 4 May 2020. (Link).
[38] Institute for Innovation and Public Purpose (2020). A green economic renewal after the COVID-19 crisis. UCL IIPP COVID-19 Briefing Papers 04 (June 2020). (link).
[39] Mazzucato and Skidelsky (2020), op cit. Stiglitz, J. and Rashid, H. (2020). Which Economic Stimulus Works? *Project Syndicate*. 10 June 2020. (Link).
[40] Tcherneva, P. (2018). The Job Guarantee: Design, Jobs, and Implementation. *Levy Institute Working Paper No. 902.* (Link). Wray, R. (2018). A Consensus Strategy For A Universal Job Guarantee Program. *Levy Institute Policy Note 2018/3.* (Link).
[41] Committee on Climate Change. (2019). UK Housing: Fit for the Future? (Link).

Labour unions should be supporting the role of governments in thinking in forward-looking ways to make sure the green renewal is co-created and co-shaped, rather than either imposed without buy-in or overlooked altogether.

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